SUBWOOFER SYSTEM

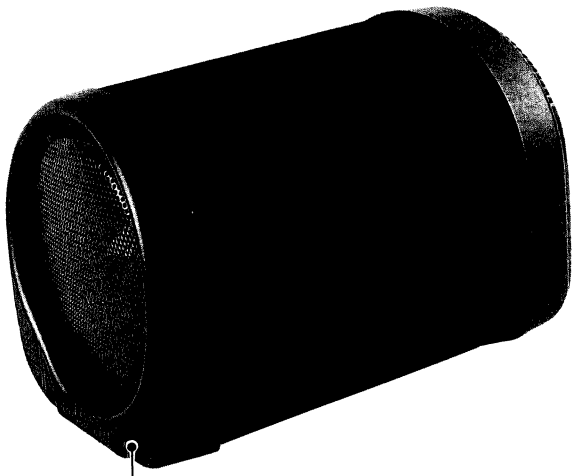
KSC-WA1001

SERVICE MANUAL

KENWOOD

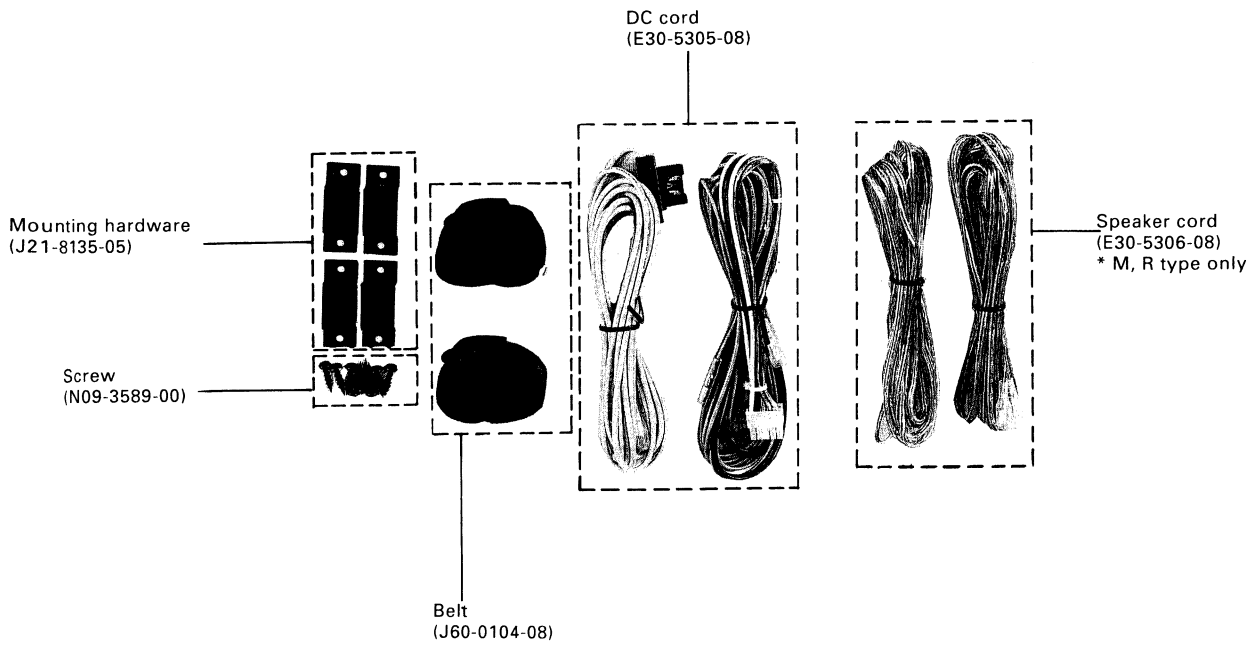
KENW - 04584

©1996-2 PRINTED IN JAPAN
B51-6987-00(MC) 1341



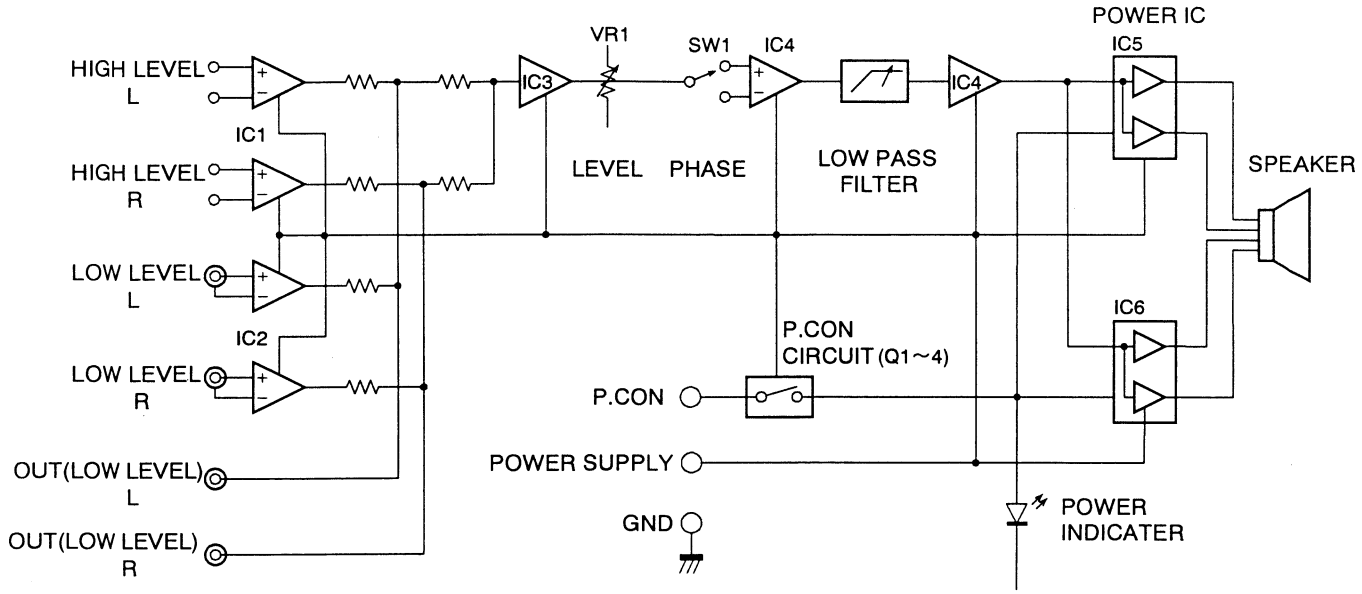
Front panel Ass'y
(A21-2872-08)

Rear panel
(A21-2926-08)



KSC-WA1001

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Description of components

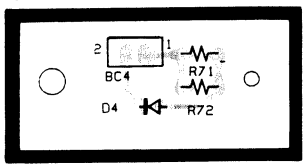
AMPLIFIER UNIT (W02-0196-08)

Component	Component Name	Application/Functions	Operation/Condition/Compatibility
IC1	NJM4558DX	Input amp	For high level
IC2	NJM4558DX	Input isolation amp	For RCA pin input
IC3	NJM4558DX	Mix amp and used to stabilize power supply	To mix L and R signal and to generate 1/2 Vcc
IC4	NJM4558DX	Filter amp	
IC5, 6	μPC2505H	Main amp	
Q1	2SC2785	To detect remote signal	
Q2	2SA1318(S,T)	Power switch for operational amp	
Q3, 4	2SC2785	Power switch for operational	
Q5	2SC2001(M,L,K)	Stabilized power supply for operational amp	

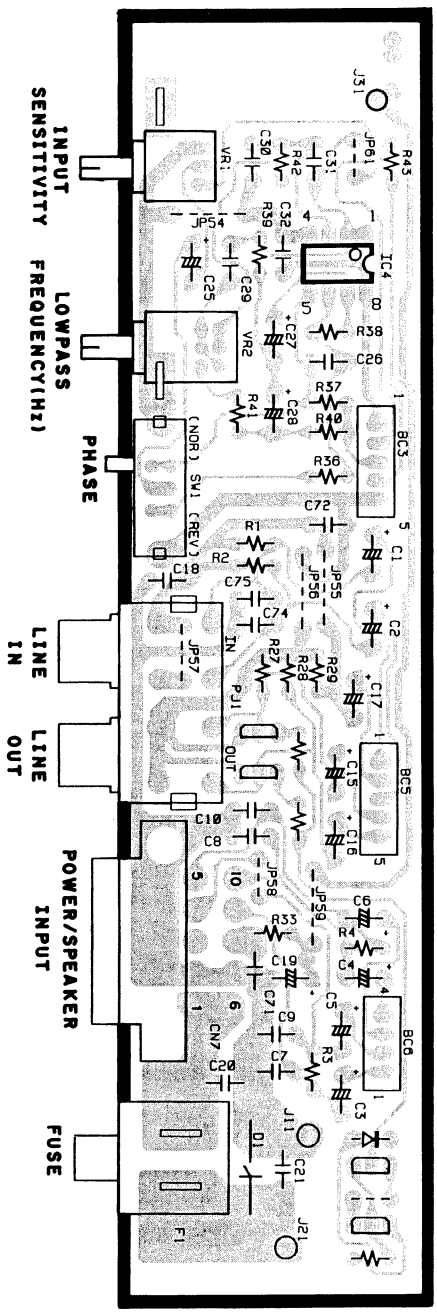
PC BOARD (Component side view)

AMPLIFIER UNIT (W02-0196-08)

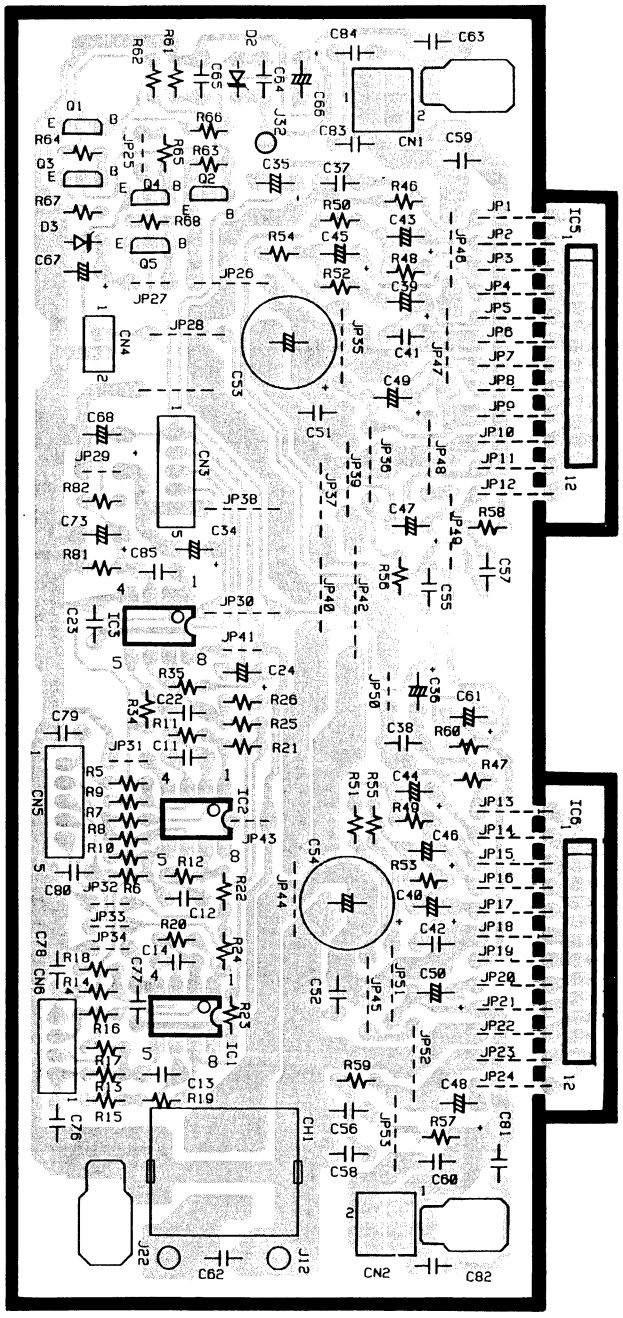
C-BLOCK



B-BLOCK



A-BLOCK

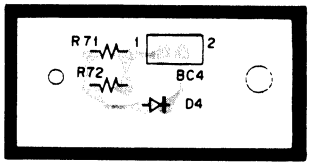


Refer to the schematic diagram for the values of resistors and capacitors.

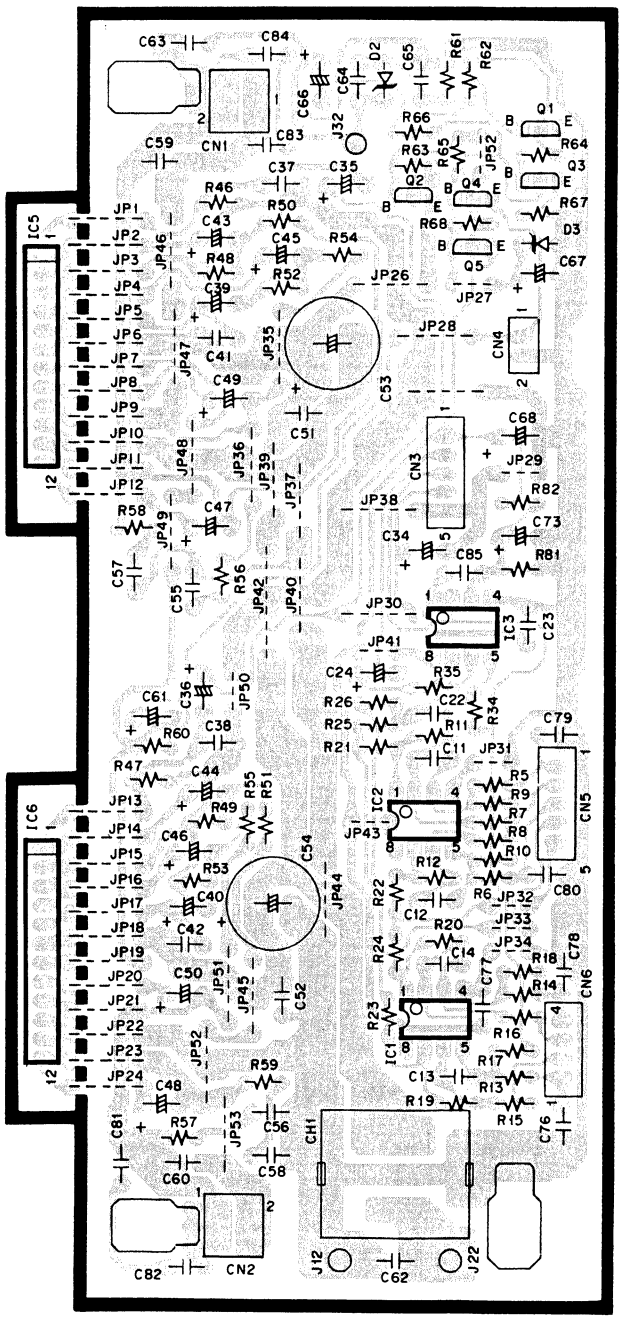
PC BOARD (Foil side view)

AMPLIFIER UNIT (W02-0196-08)

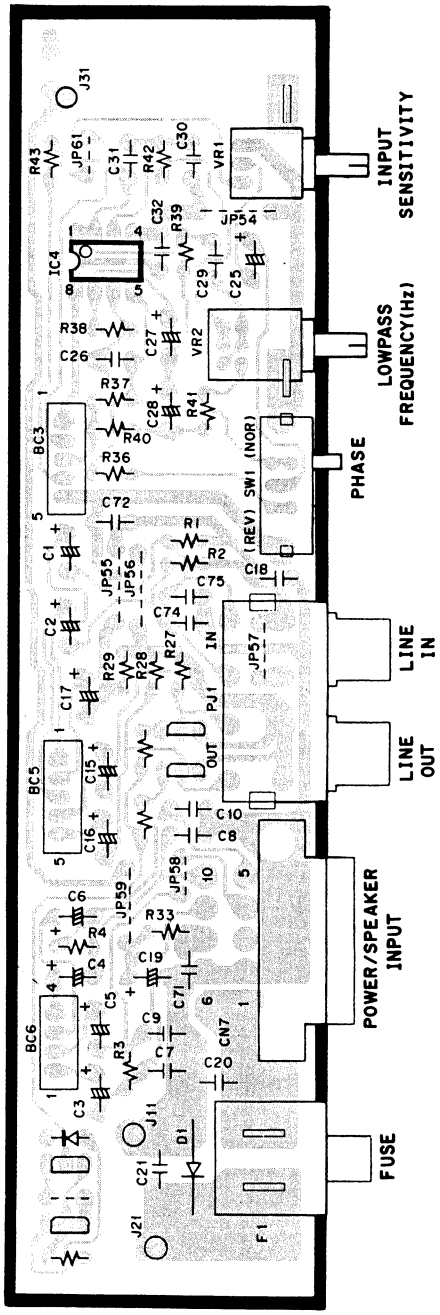
C-BLOCK



A-BLOCK



B-BLOCK



Refer to the schematic diagram for the values of resistors and capacitors.

B-BLOCK

A-BLOCK

C-BLOCK

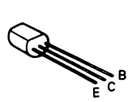
IC1~4 : NJM4558DX
IC5,6 : UPC2505H

Q1,3,4 : 2SC2785
Q2 : 2SA1318(S,T)
Q5 : 2SC2001(M,L,K)

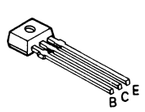
D1 : RM10ZLF
D2 : MTZ6.8J(B)
D3 : MTA10J(B)
D4 : B30-1806-08

SIGNAL LINE
GND LINE
+B LINE

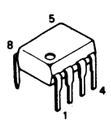
2SA1318
2SC2001



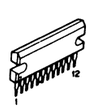
2SC2785



NJM4558DX



UPC2505H



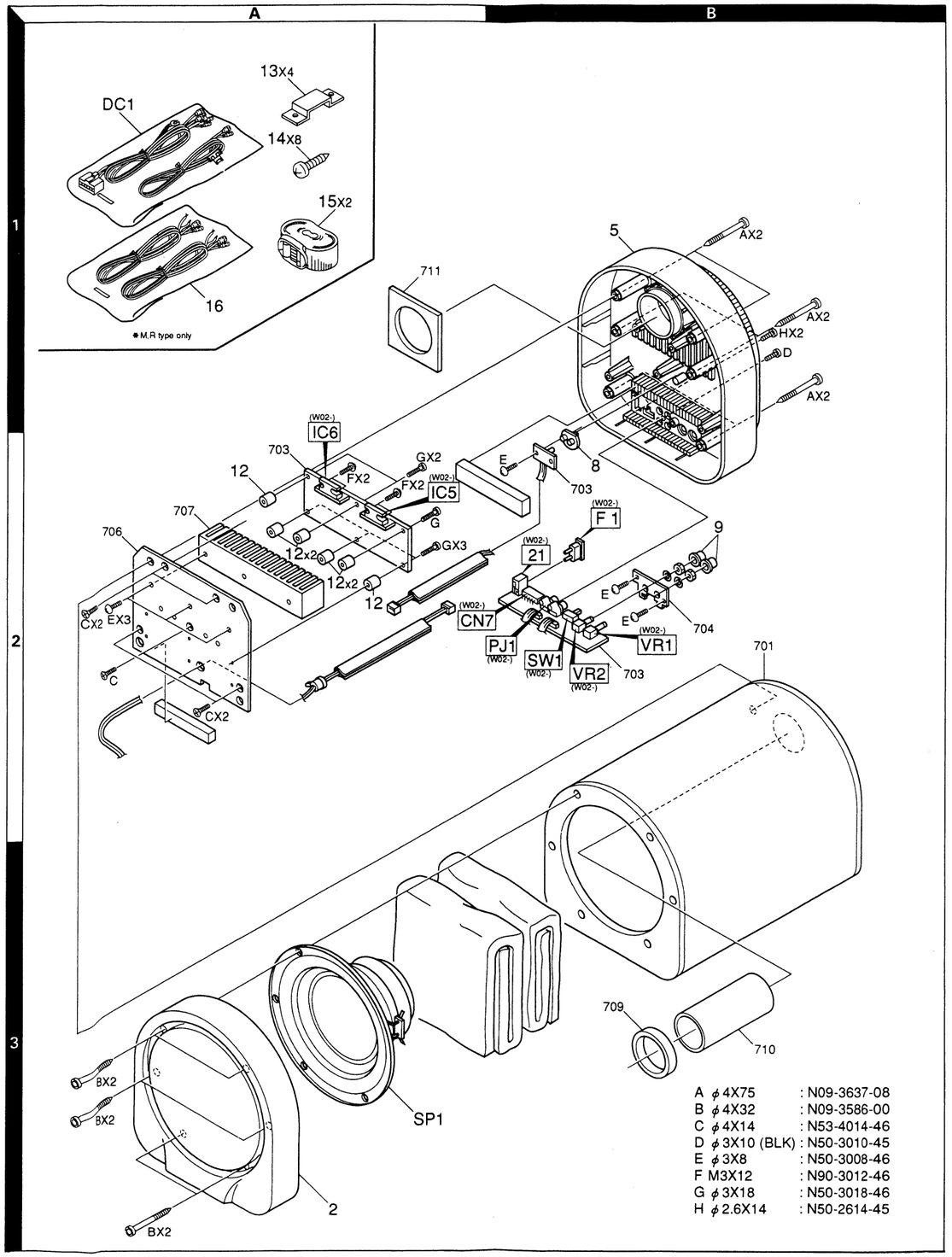
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KSC-WA1001

KENWOOD

EXPLODED VIEW



A φ4X75 : N09-3637-08
B φ4X32 : N09-3586-00
C φ4X14 : N53-4014-46
D φ3X10 (BLK) : N50-3010-45
E φ3X8 : N50-3008-46
F M3X12 : N90-3012-46
G φ3X18 : N50-3018-46
H φ2.6X14 : N50-2614-45

7 Parts with the exploded numbers larger than 700 are not supplied.

KSC-WA1001

PARTS LIST

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

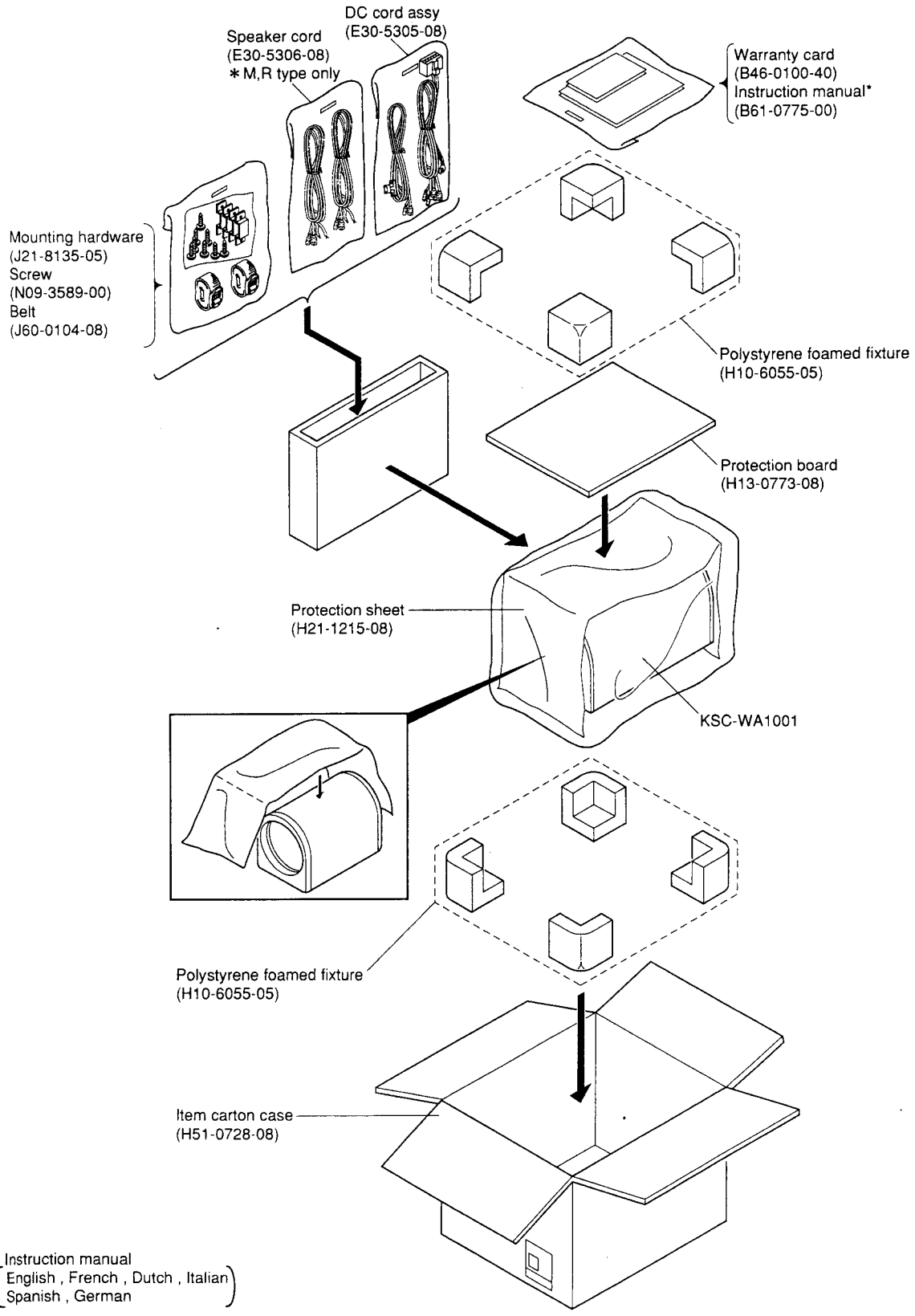
Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名/規格	Destination 仕向
KSC-WA1001					
2	3A		A21-2872-08	FRONT PANEL ASSY	
5	1B	×	A21-2926-08	REAR PANEL	
8	2B	×	B19-1261-08	LIGHTING BOARD	
-			B46-0100-40	WARRANTY CARD	
-		×	B61-0775-00	INST.MANUAL(E,F,D,I,S,G)	
16	1A	×	E30-5306-08	SPEAKER CORD	M,R
DC1	1A	×	E30-5305-08	DC CORD	
12	2A		G11-0299-08	SPACER (6)	
-			H10-6055-05	POLYSTYRENE FOAMED FIXTURE	
-			H13-0773-08	PROTECTION BOARD	
-			H21-1215-08	PROTECTION SHEET	
-			H25-1082-08	PROTECTION BAG	
-		×	H51-0728-08	ITEM CARTON CASE	
13	1A		J21-8135-05	MOUNINTG HARDWARE	
15	1A		J60-0104-08	BELT	
9	2B		K29-0566-04	KNOB	
14	1A		N09-3589-00	SCREW (PARTS INCLUDED)	
A	1B	×	N09-3637-08	SCREW (4X75)	
B	3A		N09-3586-00	SCREW (4X32)	
C	2A	×	N53-4014-46	FLAT HEAD TAPPING SCREW (4X14)	
D	1B		N50-3010-45	BINDING HEAD TAPPING SCREW:BLK	
E	2B		N50-3008-46	BINDING HEAD TAPPING SCREW	
F	2A		N90-3012-46	TP HEAD MACHINE SCREW (3X12)	
H	1B	×	N50-2614-45	BINDING HEAD TAPPING SCREW	
G	2A	*	N50-3018-46	BINDING HEAD TAPPING SCREW	
SP1	3A	×	T10-0710-08	WOOFER	
AMPLIFIER UNIT (W02-0196-08)					
D4			B30-1806-08	LED	
C1 -6			CE04DW1H2R2M	ELECTRO 2.2UF 50WV	
C7 -10			CK45FB1H221K	CERAMIC 220PF K	
C11 -14			CK45FB1H101K	CERAMIC 100PF K	
C15 ,16			CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C17			CE04DW1E220M	ELECTRO 22UF 25WV	
C18			CK45FF1H103Z	CERAMIC 0.010UF Z	
C19			CE04DW1HR47M	ELECTRO 0.47UF 50WV	
C20			CF92V1H223J	MF-C 0.022UF J	
C21			CF92V1H103J	MF-C 0.010UF J	
C22			CK45FB1H101K	CERAMIC 100PF K	
C23			CK45FF1H103Z	CERAMIC 0.010UF Z	
C24 ,25			CE04DW1C330M	ELECTRO 33UF 16WV	
C26			CK45FB1H101K	CERAMIC 100PF K	
C27 ,28			CE04DW1H3R3M	ELECTRO 3.3UF 50WV	
C29			CF92V1H104J	MF-C 0.10UF J	
C30			CF92V1H822J	MF-C 8200PF J	
C31			CK45FB1H101K	CERAMIC 100PF K	
C32		×	CK45FF1E104Z	CERAMIC 0.10UF Z	
C33			CE04DW1H2R2M	ELECTRO 2.2UF 50WV	
C34			CE04DW1HR47M	ELECTRO 0.47UF 50WV	
C35 ,36			CE04DW1V100M	ELECTRO 10UF 35WV	

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名/規格	Destination 仕向
C37 ,38			CK45FB1H332K	CERAMIC 3300PF K	
C39 ,40			CE04DW1C470M	ELECTRO 47UF 16WV	
C41 ,42			CK45FF1H103Z	CERAMIC 0.010UF Z	
C43 -46			CE04DW1A470M	ELECTRO 47UF 10WV	
C47 -50			CE04DW1A221M	ELECTRO 220UF 10WV	
C51 ,52			CF92V1H104J	MF-C 0.10UF J	
C53 ,54			CE04DW1C222M	ELECTRO 2200UF 16WV	
C55 -58			CF92V1H104J	MF-C 0.10UF J	
C59 ,60			CK45FB1H102K	CERAMIC 1000PF K	
C61			CE04DW1V100M	ELECTRO 10UF 35WV	
C62 -64			CK45FF1H103Z	CERAMIC 0.010UF Z	
C65			CK45FB1H102K	CERAMIC 1000PF K	
C66			CE04DW1C101M	ELECTRO 100UF 16WV	
C67			CE04DW1C470M	ELECTRO 47UF 16WV	
C68			CE04DW1C221M	ELECTRO 220UF 16WV	
C71			CK45FF1H103Z	CERAMIC 0.010UF Z	
C73			CE04DW1V100M	ELECTRO 10UF 35WV	
C74 ,75			CK45FB1H221K	CERAMIC 220PF K	
C76			CC45FSL1H560J	CERAMIC 56PF J	
C77		×	CK45FF1E104Z	CERAMIC 0.10UF Z	
C78			CC45FSL1H560J	CERAMIC 56PF J	
C81 -84			CK45FB1H222K	CERAMIC 2200PF K	
C85 ,86			CK45FB1H182K	CERAMIC 1800PF K	
PJ1		×	E63-0206-08	PHONO JACK	
F1			F05-1537-05	FUSE (15A)	
21		×	J13-0208-08	FUSE HOLDER	
CH1			L33-0401-08	POS LABEL	
R5 -8			RN14BK2C8202F	RN 82.0K F 1/6W	
R9 -12			RN14BK2C1603F	RN 160K F 1/6W	
VR1		×	R31-0407-08	VARIABLE RESISTOR	
VR2			R31-0402-08	VARIABLE RESISTOR	
SW1		×	S62-0206-08	SLIDE SWITCH	
D1			RM10ZLF	DIODE	
D2			MTZ6.8J(B)	ZENER DIODE	
D3			MTZ10J(B)	ZENER DIODE	
IC1 -4			NJM4558DX	MEMORY IC	
IC5 ,6			UPC2505H	ANALOGUE IC	
Q1			2SC2785	TRANSISTOR	
Q2			2SA1318(S,T)	TRANSISTOR	
Q3 ,4			2SC2785	TRANSISTOR	
Q5			2SC2001(M,L,K)	TRANSISTOR	

E: Europe K: North America M: Other Areas
W: Without Europe

⚠ indicates safety critical components.

PACKING



* Instruction manual
(English , French , Dutch , Italian
Spanish , German)

KSC-WA1001

SPECIFICATIONS

Specifications subject to change without notice.

Type	Powered Subwoofer
[Amplifier]	
Max. Power Output	50W/2Ω + 50W/2Ω (Dual Voice-Coil Drive)
Rated Power Output	30W/2Ω + 30W/2Ω (Dual Voice-Coil Drive)
Frequency Response	18 ~ 200 Hz
Signal to Noise Ratio	85 dB
Sensitivity/Input Impedance	
RCA Pin Jack	37 mV/ 1 kΩ
Speaker input	1000 mV/ 10 kΩ
Low Pass Filter Frequency	50 ~ 200 Hz (Variable)
[Speaker]	
Enclosure	Bass Reflex
Speaker unit	250 mm (10") Cone Type
[General]	
Operating Voltage	14.4 V (10.5 ~ 16 V allowable)
Current Consumption (Max.)	12 A
Dimensions (W × H × D)	307 × 322 × 482 mm (12-1/16" × 12-11/16" × 19")
Weight	8.3 kg (18.3 lb)

KENWOOD CORPORATION
14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150 Japan

KENWOOD SERVICE CORPORATION
P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745 U.S.A.

KENWOOD ELECTRONICS CANADA INC.
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.
P.O. BOX 55-2791, Piso 6 Plaza Chase, Cl. 47 y Aquilino de la Guardia, Panama, Republic de Panama

TRIO-KENWOOD U.K. LIMITED
KENWOOD House, Dwight Road, Watford, Herts, WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.
Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker Str. 15, 63150 Heusenstamm, Germany

TRIO-KENWOOD FRANCE S.A.
13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.
Via G. Sirtori 7/9, 20129 Milano, Italy

KENWOOD IBÉRICA S.A.
Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (A.C.N. 001 4[illegible]074)
P.O. BOX 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.
Unit 3712-3724, Level 37 Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T. Hong Kong

KENWOOD ELECTRONICS SINGAPORE PTE LTD.
No. 1 Genting Lane # 07-00, KENWOOD Building Singapore, 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD
10 th Floor, Block B, Wisma Semantan, No. 12, Jalan Gelenggang, Bukit Damansara, 50490 Kuala Lumpur, Malaysia